by counting more leucocytes than is usually done. In many cases the clinical diagnosis was confirmed by post-mortem examination. In counting the white corpuscles a modification of the method of Thoma was used, in which, instead of counting the corpuscles in the squares of the blood-counter, all those in a number of fields were counted, after estimating the contents of the space covered by the field. For many interesting details the original should be consulted; the following conclusions give the most important results: In beginning phthisis the number of leucocytes is normal. In advanced cases, but where cavity-formation has not taken place, the number is also normal. After attacks of hæmoptysis there is usually moderate leucocytosis, which disappears after the cessation of the hemorrhage. In advanced tuberculosis with chronic infiltration, but where destruction of tissue is slight or has not yet begun, the leucocytes may be normal. Increase of leucocytes is encountered in cases with cavity-formation; in cases with chronic suppuration as the result of carious processes; in final exudative processes; and in cases with hyperplasia of lymph-glands. As regards cavity-formation the following statements are important: If leucocytosis occurs in a tuberculous case in which there is no chronic suppuration and no exudation, ulcerative change, *i. e.*, cavity-formation, may be diagnosed. If in a case with normal leucocytes for a long time an increase takes place, excavation may be concluded. As long as the leucocytes are not increased the existence of a cavity, at least one of considerable size, may be excluded. The cause of the leucocytosis is not the tuberculous poison itself, but a secondary infection, a septic process, which may be the result of various bacteria.

Tabes Dorsalis and Syphilis.

Storbeck (*Zeitschrift für klin. Med.*, Bd. 29, p. 141) has analyzed the histories of 108 cases of tabes in the hospital and private practice of Professor Leyden. Of these, 22 were syphilitic; 23 had doubtful histories; and in 63 syphilis could be excluded. Supposing that half of the doubtful cases were really syphilitic, the result would be 30.6 per cent., which Storbeck thinks is not higher than might be expected from the frequency of syphilis, so that the relation of the two diseases does not seem to him established. The value of the article is increased by the fact that it contains abstracts of the clinical histories of the 108 cases, and also a table showing the percentage of syphilitic cases in tabes according to forty-eight authors, from the 97 per cent. of Déjérine to the zero of Mayer.

Protozoa (Trichomonas) in Sputum.

Schmidt reports three cases from the medical clinic in Bonn in which flagellate protozoa were found in the sputum.

The first case was one of aspiration-pneumonia, following cancer of the larynx. There was slight dilatation of the bronchi. The second case was one of chronic pneumonia and pleurisy and probable dilatation of bronchi, subsequent to the aspiration of a splinter of bone. The third case was one of bronchiectasis of long standing.

In all the cases the protozoa were found only in the " Dittrich's plugs,' in variable numbers. The average size was that of a pus-corpuscle. The form was usually oval or long and irregular. The protoplasm was granular, whether from ingested bacteria the author could not be certain. A nucleus could rarely be seen except in dead specimens. At one end were from one to four flagella in lively motion, and extending back from these, about half the length of the body, an undulating membrane. At the opposite end of the body was a pointed tail, which sometimes served as an organ of support. Schmidt also noticed amœboid motion and the formation of pseudo-spods, which appeared at various parts of the body. The name trichomonas pulmonalis is suggested, though the author admits the species may be the same as that found in the vagina. Staining was not successful, nor could the parasites be cultivated. The organisms disappeared in the second case as the condition improved. Schmidt looks on the parasites as non-pathogenic.—*Münchener med. Wochenschrift*, 1895, No. 51.

THE RELATION BETWEEN THE ACIDITY OF THE GASTRIC JUICE AND THE ACIDITY OF THE URINE.

MATHIEU and TREHEUX, after reviewing the work of others on this subject, give the following conclusions as the result of their own observations:

1. There is a relation between the acidity of the gastric juice and the acidity of the urine.
2. The more acid is produced in the stomach, either from normal secretion or food-fermentation, but especially from the fermentation of milk, the more the excretion of acid by the urine, during digestion, is increased.
3. Under normal conditions the acidity of the urine diminishes considerably during the three to five hours following digestion, and later increases again. This diminution in acidity may be preceded by a passing increase during the first hour of digestion, as if a certain amount of acid was immediately passed on with the ingested fluids and rapidly excreted.
4. As a rule, there is an almost absolute parallelism between the curves which represent the relative acidity (acidity per 1000) and the absolute quantity of acid excreted. This parallelism is wanting when a certain degree of polyuria exists after a meal; the curve of the relative acidity is then elevated, whilst that of the absolute acidity is depressed.
5. When a notable quantity of acid secretion is removed from the stomach, either by vomiting or lavage, this removal is followed by a notable diminution in the acidity of the urine. The urine may become alkaline under these conditions.
6. The average quantity of acid eliminated hourly by the urine is higher in those with increased acidity of the stomach-juice than in those with diminished acidity.
7. The ingestion of milk notably increases the quantity of acid excreted by the urine; this is due, without doubt, to the fact that milk rapidly gives rise in the stomach to the formation of a notable quantity of lactic acid, and that this acid is rapidly carried to the kidneys on account of the increased diuresis.
8. It is not yet possible to trace the curves of urinary acidity during digestion in such a manner as to be able to diagnose the chemical variety